

REMARKS

Claims 1-23, 75-97, 155-172, 187, 188 and 240-243 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

REJECTION UNDER 35 U.S.C. § 102

Claims 1 and 75 are rejected under 35 U.S.C. § 102(b) as being anticipated by Wong (U.S. Pat. No. 6,084,790). This rejection is respectfully traversed.

With respect to Claim 1, Wong does not disclose or suggest that at least the inductors have respective polarities that cancel each other or a coefficient of coupling equal to one.

Wong, as best understood by Applicant, instead teaches a typical transformer system that includes a voltage regulator to regulate voltage on a primary winding side 303 and an output receiving the transformed voltage on a secondary winding side 305, as seen in FIG. 8 of Wong.

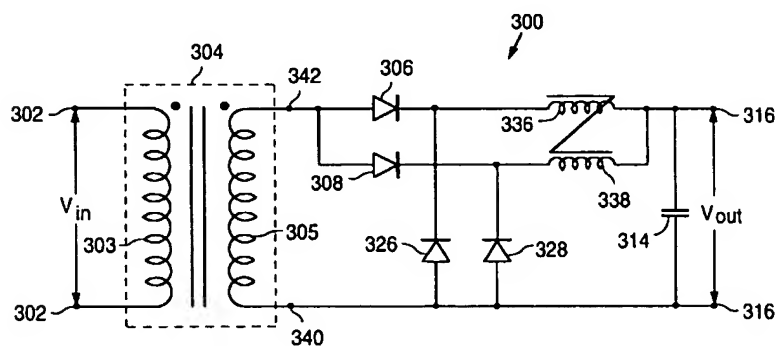


FIG. 8

The primary and secondary windings have matching polarities that do not cancel each other. However, coefficient of coupling and inductor polarities do not appear to be discussed or implied in Wong.

For anticipation to be present under 35 U.S.C. §102(b), there must be no difference between the claimed invention and the reference disclosure as viewed by one skilled in the field of the invention. *Scripps Clinic & Res. Found. v. Genentech, Inc.*, 18 USPQ.2d 1001 (Fed. Cir. 1991). All of the limitations of the claim must be inherent or expressly disclosed and must be arranged as in the claim. *Constant v. Advanced Micro-Devices, Inc.*, 7 USPQ.2d 1057 (Fed. Cir. 1988). Applicant notes that the Office Action does not cite sections of Wong that disclose or even suggest inductors having the claimed polarity and coefficient of coupling.

Therefore, Claim 1 is allowable for at least the above reasons. Claims 75, 155, and 164 are allowable for at least similar reasons as Claim 1. Claims 2-23, 76-97, 156-163, 165-172, 187-188, and 240-243 ultimately depend from Claims 1, 75, 155, and 164 and are allowable for at least similar reasons.

REJECTION UNDER 35 U.S.C. § 103

Claims 2-23, 76-97, 187-188 and 240-243 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wong (U.S. Pat. No. 6,084,790) in combination with Moreau (U.S. Pat. No. 5,821,832) and Wittenbreder, Jr. (U.S. Pat. No. 5,402,329) and further in combination with Riggio et al. (U.S. Pat. No. 6,493,242).

Claims 155-172 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Wong in combination with Moreau and Wittenbreder, Jr. and further in combination

with Riggio et al. and A.F. Podell (U.S. Pat. No. 3,529,233). These rejections are respectfully traversed.

With respect to Claim 188, Wong, Moreau, Wittenbreder, Jr. and Riggio do not show, teach or suggest at least that first and second drive signals are the same signal with a phase offset that is equal to 360 degrees divided by a number of conduction switches.

As best understood by Applicant, Wong includes a set of power devices/switches that **“are operated in phase** so as to provide equal current sharing between the set of N power devices.” Column 5, Lines 1-3 of Wong (emphasis added). In contrast, the drive signals of Claim 188 drive switches out of phase.

Further, the signals of Claim 188 have a predetermined phase offset corresponding to 360 degrees divided by a number of switches. Because Wong drives power devices/switches in phase, drive signals of Wong do not drive the power devices/switches at a predetermined phase offset.

Moreau, Wittenbreder, Jr. and Riggio fail to cure the deficiencies of Wong. For example, Moreau and Podell do not discuss switches or drive signals for switches. Wittenbreder Jr., on the other hand, includes switches but does not control the switches with signals that have a phase offset of 360 degrees divided by the number of conduction switches. For example, Wittenbreder Jr. includes “a conventional timing circuit” that “controls the duty cycles of switches 206, 212, and 234” so that “switch 212 and switch 234 are turned off simultaneously.” Column 6, Lines 50-65. In other words, the switches 212, 234 of Wittenbreder, Jr. are controlled in phase.

Still further, Riggio merely includes a single switch controlled by a drive circuit that periodically provides control for an inductor. In other words, Riggio does not control switches with signals that have a phase offset of 360 degrees divided by the number of conduction switches because Riggio only controls one switch.

It is a longstanding rule that to establish a prima facie case of obviousness of a claimed invention, all of the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 143 (CCPA 1974), see MPEP §2143.03. Here, the Examiner fails to provide **any** reference to support a finding that first and second drive signals are the same signal with a phase offset that is equal to 360 degrees divided by a number of conduction switches is obvious. Furthermore, when evaluating claims for obviousness under 35 U.S.C. §103, all of the limitations must be considered and given weight. *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), MPEP § 2144.03. Here, it is clear that the Examiner has given little or no consideration of the limitation **and failed to give the limitation any weight.**

Additionally, Wong teaches away from generating first and second drive signals having a phase offset that is equal to 360 degrees divided by a number of conduction switches. As previously discussed, Wong includes a set of power devices/switches that **“are operated in phase** so as to provide equal current sharing between the set of N power devices.” Column 5, Lines 1-3 of Wong (emphasis added). Wong teaches control of the switches in phase to ensure equal current sharing between parallel power devices. Column 1, Lines 1-7 of Wong. Were the switches of Wong to be controlled out of phase as the Examiner proposes, Wong would fail to ensure equal current sharing

between parallel power devices and would instead divide the current so that various branches do not equally share current.

A reference must be considered for all that it teaches including disclosures that point towards the invention and disclosures that teach away from the invention. *In re Dow*, 5 USPQ.2d 1529 (Fed. Cir. 1988). It is improper to take teachings in the prior art out of context and give them meanings that they would not have to those skilled in the art. *In re Wright*, 9 USPQ.2d 1649 (Fed. Cir 1989). It is impermissible to pick and choose from a reference in an attempt to support a given position to the exclusion of other essential parts of what the reference fairly teaches to one skilled in the art. *Bausch & Lomb, Inc. v. Barnes-Hind, Inc.*, 230 USPQ 416 (Fed. Circ. 1986). Wong teaches away from first and second drive signals that control switches and that have a phase offset that is equal to 360 degrees divided by a number of conduction switches and instead teaches controlling switches in phase.


Therefore, Claim 188 is allowable for at least these reasons. Claim 243 is allowable for at least similar reasons.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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